TREATMENT OF THE WOUNDED.

At the meeting of the Academy of Sciences, held in Paris on Monday, August 10, a paper, of particular interest at the present time, was read by Inspector-General Edmond Delorme dealing with the treatment of the wounded in modern warfare.[1] General Delorme became a surgeon in the French Army during the last Franco-Prussian War, and has devoted his life to the advancement of military surgery, his text-book on that subject being recognised everywhere as a standard work. His opinion of the wounds inflicted by modern weapons is by no means pessimistic:—

> "The military surgeons, at the present time," he writes, "must adopt the most conservative methods of treatment in the great majority of military wounds; indeed, such methods must be applied in practically every case of bullet wound. The opening of a modern bullet wound is so small that if the surgeon adopts strict antiseptic or aseptic dressings and refrains from probing the wound or making a systematic search for foreign bodies arrested in its track, it is possible to give the most favourable prognosis for wounds of this class. Thanks to aseptic and antiseptic methods of treatment, the wounded run less risk than in former times."

The pointed bullet, employed by the German Army, leaves very narrow wounds of entrance and exit when it penetrates the more fleshy parts of the body, but its track in the tissues themselves is marked by a considerable degree of destruction. Still, such cases, in General Delorme's opinion, should recover in the course of several days or perhaps weeks. On the other hand, wounds from shrapnel, or from deformed bullets, are often extensive, open, and complicated by the intrusion of clothing or other foreign bodies. Such wounds are not necessarily dangerous, but they frequently suppurate and require close attention when the wounded are being transported to the hospital at the base.

One naturally pays the closest attention to what General Delorme has to say regarding wounds of the abdomen—so fatal in former wars. During the last twenty years surgeons have so improved their technique that they now perform abdominal operations as safely as those on the limbs.

> "The treatment of wounds of the abdomen," writes General Delorme, "deserves the closest attention of surgeons, particularly of those working at the front. We have new methods at our disposal which may ameliorate the results of a class of cases always regarded as of grave import. The advisability of operating on such cases in civil practice is open to discussion, but the case in war is quite different. In war the surgeons must lay aside any idea of opening the abdomen. The experience of all recent wars is against such means—experience in the Transvaal, Manchuria, the Balkans. In the Transvaal, even when abdominal operations were carried out by the most eminent surgeons, under the best conditions, it was found that those who were operated on yielded a smaller percentage of recoveries than the cases which were not subjected to operation."
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> The modern German bullet, in full flight, leaves a very small wound on the wall of the abdomen, and seldom infects the wound by carrying clothing in front of it. The perforations produced by such bullets in the loops of intestine are minute and tend to close spontaneously. In some cases the bullet may pass between loops, leaving the intestinal wall intact.
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> The natural and salutary inclination on the part of the wounded to relieve both bladder and bowels, allowing the patient rest for some time, instead of hurrying him to the transport, allows a natural exudate to form round the wounded parts and favours the process of healing. For wounds of this kind the ancient methods of treatment seem best: absolute repose, refraining from prolonged transport, total abstinence from food and drink for several days, rinsing of the mouth, hypodermic injections of artificial serum, the administration of opium, and placing the patient in a half-sitting (Fowler's) posture.

It will be thus seen that the leading military surgeon of France advises conservative methods of treatment. We do not doubt that he is right. During an extensive action the surgeons at the front are suddenly overwhelmed by thousands of patients. It would be impossible to undertake, even were it advisable, prolonged and tedious operations—to give attention to one case and neglect the remaining ninety-nine. Fortunately, at least in General Delorme's opinion, such operations at the front are unnecessary; the surgeon's business is simply to see that the wounded are placed in the best circumstances to allow their natural recuperative powers to have the best chance of exerting themselves.

Much of the paper to which we have directed attention is of a purely technical nature and directly concerns only surgeons of the navy and army. But much of it concerns us all, and we are glad to think that as our arms of precision have improved our methods of treating the injuries produced by such improvements have not lagged behind.

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[1] "Blessures de Guerre, Conseils aux Chirurgiens." Par M. Edmond Delorme. *Comptes rendus*, August 10, p. 394.

NATURAL HISTORY, INFORMAL AND FORMAL.[1]

(1) The first of the books before us aims rather at being a work of art than of natural history. It tells, with many a winding bout of linked fancy, of the yearnings of a boy and of a somewhat introspective stag. Never since the days of melancholy Jacques was such outpour of sentiment upon a stricken deer. To those who like this mood the book may be recommended, for it is curiously wrought and daintily embellished.

(2) The second book on the list strikes quite another strain: its author has certainly succeeded in his object, which is to introduce those of his fellow-creatures who love to live under the green-

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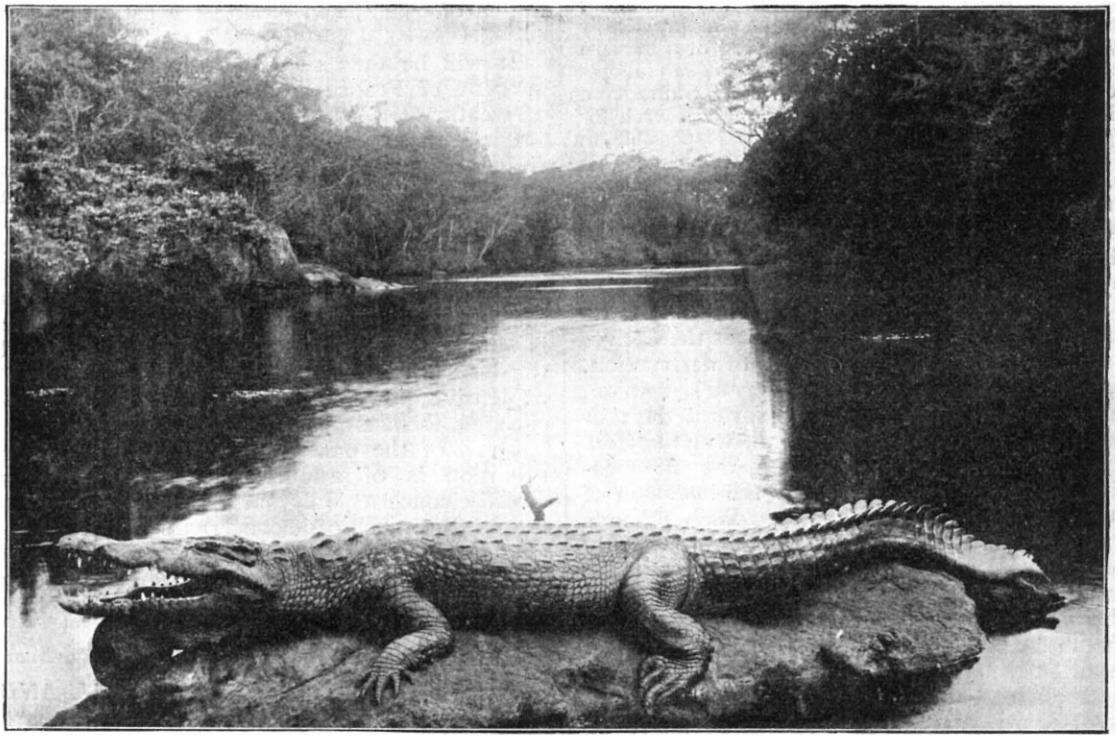
[1] (1) "The Trail of the Sandhill Stag." By E. T. Seton. Pp. 93+plates. (London: Hodder and Stoughton, 1914.) Price 3*s*. 6*d*. net.

(2) "Wild Game in Zambezia." By R. C. F. Maugham. Pp. xii+376+plates. (London: John Murray, 1914.) Price 12*s*. net.

(3) "Animal Communities in Temperate America as Illustrated in the Chicago Region." A Study in Animal Ecology. By Dr. V. E. Shelford. Pp. xiii+362. (Chicago: University of Chicago Press; London: Cambridge University Press, n.d.) Price 12*s*. net.

wood tree to one of the few remaining regions of the earth where noble scenery is still unvulgarised and good shikar still unspoiled.

As a geographical expression, Zambezia is a little vague, but it appears from the companion map to include the Zambezi delta and the entire basin of the Zambezi system in the last five hundred miles of that great river's course. This country is said to contain every variety of climate and every beauty of African landscape. With the touch of a magician the author reveals tropical lowlands where vast seas of prairie, studded with islands of jungle, end in oceans of swamp and billowy sedge, the citadel of the water-birds—a very Nephelococcygia. Then up country he shows us the blue Zambezi, with many a feathery islet on her broad bosom, flowing through grassy plains and tranquil park-like expanses that lead into the forest primeval—gloomy shades made almost impenetrable by tangled creeper and thorny undergrowth, but breaking here and there into green pastures where the spongy soil is thickly printed with heart-thrilling spoor. Beyond the tropical jungle we pass to more temperately verdant hills, where cedar and bracken and the music of the waters call to mind the pine-woods of Scotland; and thence to rugged heights and clattered slopes and stark granite peaks that almost rival the Alps in grandeur and inspiration.



Crocodile. From "Wild Game in Zambezia.

Of the fauna of this delightful land the author writes with discernment tempered with humour. He considers each species separately, in all its ways and bearings, from behemoth in the covert of the reed and fen to the coney that dwells among the rocks; if it be game, he has plenty of good stories to tell, in time and season, of its pursuit; and if it be an animal that can be made a pet of he can impart amusing information as to its manners and behaviour, good and bad. He also writes sensibly about game-reserves, tolerantly about the camera-sportsman, and with becoming scorn about the biltong-butcher. He has something to say about the tsetse-fly problem, and regards with unmeasured disapproval the barbarous proposals of those who think to settle it offhand by wholesale slaughter of game. It is to be wished that he could tell us something of the fly itself—whether we are, or are not, justified in assuming that an insect that produces a limited number of young, and nourishes them in her womb, must always carefully deposit them in some chosen habitat at that most critical period in their post-embryonic development when they become independent of her.

Since he writes so methodically and scientifically of what he really knows, it is a pity that he sometimes wanders into the misty regions of pseudo-science, as when he discourses about the ancestry of the elephant, or gravely explains that since the horn of the rhinoceros consists of agglutinated hairs it has nothing in common with other horn.

The chapter on rifles and ammunition, tents, and all manner of equipment, camp regulations, etc., is full of most useful detail. But the list of stores required by two persons for a trip of two months is startling. It almost shakes one's confidence in the author to learn that he cannot go into camp with a friend for two months without a dozen tins each of lobster and salmon, two dozen tins of sausages, and three dozen tins of fruits in syrup.

The book is well printed and beautifully illustrated.

(3) The third book on the list reveals Science in her severest mood. The aim of this conscientious piece of work is to elevate the outdoor pursuit of natural history into a serious academic study embracing each and every species of animal in relation to its environment, particularly to its organic environment, and still more particularly in its relations of interdependence with other species of animals. It may almost be regarded as embodying a formulary or ritual of the precepts and principles shown forth in the third chapter of that immortal book, "The Origin of Species."

The author adheres firmly and steadily to the great truth that all the animals of a given habitat form a definite interdependent association; but his application of the term "community" to an assemblage bound by ties so non-moral implies a cynical view of the ethics of communal life in this twentieth century. He sets out to determine by a prolonged and detailed study of a given territory—its streams, ponds, lakes, swamps, prairie, thickets, forests, etc.—the salient impressive features of its different kinds of habitat, and the character and exact specific composition of the animal-associations appertaining to each. An incidental end is to teach the sentimental person "sanity towards nature," and to show the practical man that he himself has much to find out before he can learn any animal to be a toad. So far so good; but the esoteric terminology of it all is wondrous pitiful, and there is much dressing up of old plain truths in confusing folds of majestic language—such as the following:—"The breeding instincts are the centre about which all other activities of the organism rotate, and the breeding-place is the axis of the environmental relations of the organism."

THE TOTAL SOLAR ECLIPSE OF AUGUST 21.

WHILE a number of expeditions were organised, and some were dispatched, to observe the total solar eclipse on Friday last, August 21, many were unable to take up their stations owing to the upheaval now taking place in Europe. It is, therefore, with the greatest satisfaction that we learn of at least two expeditions which successfully reached their destinations and observed the eclipse under most favourable weather conditions. The two parties were the observers from the Royal Observatory, Greenwich, consisting of Messrs. Jones and Davidson, and the expedition sent out by the Joint Permanent Eclipse Committee of the Royal and Royal Astronomical Societies, composed of Fathers Cortie and O'Connor and Messrs. Atkinson and Gibbs.

According to a telegram to the *Daily Mail* of August 24, the Greenwich party, stationed at Minsk (Russia), observed the eclipse under good conditions in a clear sky, and photographs of both the corona and chromosphere were secured. It is stated that the form of the corona was of the intermediate type, *i.e.* of the square type, there being no large equatorial streamers or streamers in the regions of the solar poles. The corona is also stated to have been very bright. The party under Father Cortie, S.J., took up their position at Hernoesand in Sweden, and his telegram to the Royal Astronomical Society says, "Weather perfect. All operations successful. Intermediate corona."

It is interesting to mention that the Greenwich party was specially equipped for recording the ultra-violet spectrum of the chromosphere, while Father Cortie's instruments were more restricted to the yellow and red regions of the spectrum. Should the photographs turn out successful after development a wide range of the chromospheric spectrum will have been secured.

It is a great pity that Prof. Fowler was prevented from making any observations, for the interesting method of photographing the spectrum of the chromosphere for a long interval of time both before and after the total phase had every chance of being successfully tried.

ALFRED JOHN JUKES-BROWNE, F.R.S.

SELDOM has the triumph of force of will over the most serious disabilities been more strikingly illustrated than in the case of the subject of this notice. To most geologists engaged in field-work the loss of the full use of the limbs would seem to be fatal, but Jukes-Browne, in spite of all difficulties, continued his work as a geological surveyor for twenty years after the almost complete loss of his powers of locomotion.

Alfred John Browne was born near Wolverhampton in 1851; his mother was a sister of the distinguished geologist, J. Beete Jukes, whose work on the English and Irish geological surveys, and whose fame as a teacher in Dublin, are so well known; and young Browne, probably fired by his uncle's example, added the name of Jukes to his own as soon as he came of age.

After receiving his early education at Highgate, Jukes-Browne entered St. John's College, Cambridge, and, under the inspiring teaching and influence of Prof. T. G. Bonney, was able to add his name to the group of distinguished geologists who made that college famous during the last half of the nineteenth century. After a successful university career, Jukes-Browne joined the geological survey in 1874, and during the next nine years did good work in parts of East Anglia and Lincolnshire. But never, probably, a very strong man, the strenuous labours of a geological surveyor began to tell upon his health, enforcing retirement for a time.

Just at this period, however, a new and promising field of work opened out for the young geologist. The famous French palæontologist Hébert